HP LaserJet Printer Product Update

Volume 15 **February 2002**

Introduction

February is the time of year we are preparing for the new Spring products! Several new and exciting products will be coming your way in the next few months. Stay tuned for the training events that will occur in your regions. More information will be coming your way as the products approach their introduction dates. Your support and efforts will be required to make these new products successful! Please keep up the good work. The following pages summarize some of the issues we are seeing with our current products. We hope you find this information useful. Please let us know if you enjoy the information presented and wish to receive more information like this in the future.

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How's your Pad?

Separation pad for the HP LaserJet 6L, 3100, 3150 and 1100 printers!

The preceding products (HP LaserJet 6L, 3100, 3150 and 1100 printers) tended to have multi-feed paper problems. The multi-feed problem was corrected by replacing the printers' separation pad. A **customer installable** separation pad kit was developed and distributed starting in December of 2000. Customers were able to order this kit, **free of charge**, at the following web site:

www.hp.com/support/ljsepkit

The success of this web site, to date, has been fantastic (over a million kits have been shipped)! The site has now been updated to support different languages. Customers have an option to express ship their order (for a fee). Customers may pay for this with a credit card at a secured web site.

In order to promote customer satisfaction we are encouraging you to **order extra separation pad kits** and keep them at your desk. If customers come to you with this problem, please give them a kit. Or better yet, install the kit for them; it only takes a few seconds.

New HP LaserJet 1000 Software

New LaserJet 1000 CDROMS

CDROM	Old P/N	New P/N
Amer/Euro/ AP	Q1342-60106	**Q1342-60111**
Eastern Europe	Q1342-60108	**Q1342-60112**

New CDROMs available from Web CDROM Order Page.

The HP LaserJet 1000 printer was introduced on October 1, 2001. The product has had a relatively low Caller Assist Level (percentage of support phone calls for products shipped) which has been very encouraging. [CAL rate in November was approximately 6.8%.] The printer software has recently rolled to fix several errors that have been identified since product introduction. The biggest of these issues is "Cannot write to USB001". Approximate 70% of the calls in North America were because of this issue. The software roll will fix a large majority of the complaints regarding this issue, especially in the Windows 98 and Windows ME environments. The software fix is less effective in the Windows 2000 and Windows XP environments.

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This latest version of the software is now shipping in-box. You may also download the latest driver. Note the download driver does not contain the DOS PCL emulator; this may only be obtained from the CDROM. In addition to the assistance with the USB001 issue, the following issues have also been addressed with this software roll:

- **Issue:** Co-existence - Running uninstall for non-LaserJet 1000 products and having it remove the LaserJet 1000.
  Description/Status: Other printer uninstall programs would unintentionally remove the LaserJet 1000 as well. The LaserJet 1000 is now protected against all other uninstall processes.

- **Issue:** Win98/ME: White joints on 2-byte Watermark at size greater than 49 points.
  Description/Status: Very large watermarks (49 pt. or greater) would print out with defects (white "joints"). This cosmetic error as been fixed with this roll.

- **Issue:** N-up borders different from LaserJet 1200
  Description/Status: The LaserJet 1000 was inconsistent with the LaserJet 1200 when printing multiple images per page. The appearance of any borders between images and the layout of the page were different on the LaserJet 1000 (i.e. different from the LaserJet 1200.) This has been corrected so that both printers print identically when using "N-up".

- **Issue:** On PDF files, some text and images on the page printed as black blocks. The printer would also occasionally hang when printing from Adobe Acrobat Reader 5.0
  Description/Status: A code defect was causing some PDF files to print incorrectly, namely: large portions of the file would simply print out as a black block. This defect is fixed with this roll. The LaserJet 1000 now works acceptable with Adobe Acrobat Reader 5.0

- **Issue:** In Windows ME only: running Setup from a network location causes setup to lose focus after the printer is plugged in (i.e. the network screen comes to the front.)
  Description/Status: The setup screen becomes hidden during installation from a network location. This may cause users to assume that the installation is complete when it is not. The issue was corrected with this firmware roll.

- **Issue:** In Windows 2000 Thai driver, after completing a Setup.exe install a second install is initiated.
  Description/Status: This second spurious install has been eliminated with roll of firmware.

- **Issue:** When using English regional settings in Chinese Windows 9x, SETUP displays in correct English language, but installs Chinese driver.
  Description/Status: The English driver now installs when English regional settings are chosen.

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- **Issue:** PCL printer not installed if all LPT ports are disabled
  Description/Status: Printer installation is now independent of LPT port status

- **Issue:** PageMaker 6.5 pages are being clipped when printing on legal size.
  Description/Status: The bottom portion of legal-size images was not printing. Also, multiple page documents would print all on one sheet of paper with the last image appearing on the page. Both of these defects are now fixed.

- **Issue:** Printing a test page after a cleaning page hangs printer. Also, error message presented when starting cleaning page without firmware in the printer.
  Description/Status: Both of these cleaning page issues have been fixed.

HP LaserJet 2200 Printer Update

High NTF (No Trouble Found) rate on returned Formatter PCAs

Our analysis of returned Formatter PCAs for the HP LaserJet 2200 printer has yielded an extremely high rate of No Trouble Founds! [The rate has been as high as 50%.] This situation is extremely costly to both HP and our customers. If you are in the situation of troubleshooting a HP LaserJet 2200 printer, and suspect that you may have a defective Formatter PCA, verify that you have NOT overlooked any of the following

- Verify that you can duplicate the customer's problem or complaint. Do not replace the Formatter PCA for "good measure". Do not overlook any outside influences, which could be causing the complaint (e.g., driver issues, network issues, print job eccentrics, media, etc …). Get to the real issue.

- Verify that the flat ribbon cable from the printer's Engine Controller to the Formatter PCA is seated. [Try re-seating this connection.] Also, verify the firmware and memory DIMMs are seated, and that the four-wire dc power connector to the Formatter PCA is fully seated.

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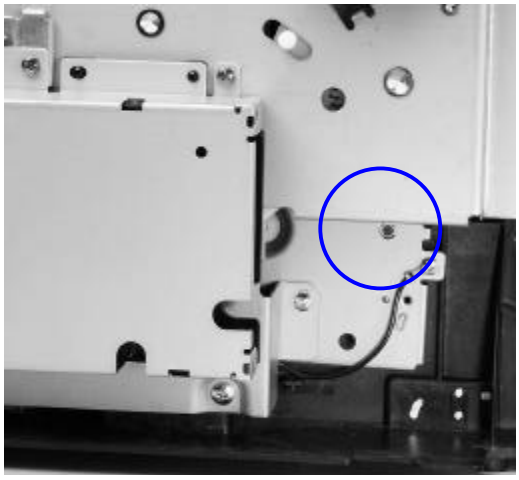
- If the customer's printer is attached to a host computer through a Parallel cable, please ensure the cable complies with the IEEE 1284 standards. [Most cables that comply to this standard have "IEEE 1248" lettering stamped on the cable.]

- If the printer still prints, print out the Self Test/Configuration Page and study the Status Log.

- Perform a printer ENGINE TEST if possible. The engine test is good for isolating printer problems from Formatter problems.

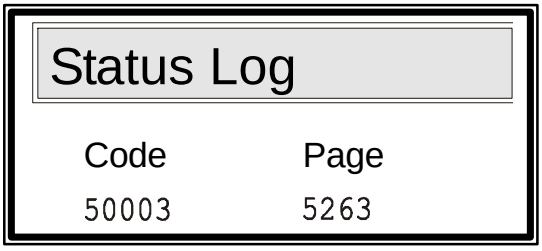
If you replace a Formatter PCA and it does NOT solve your customer's problem, return the new Formatter to inventory. [It's only five screws!]



Remove the printer's right-side, rear cover. The ENGINE TEST button is easily accessible from here.

Fatal Error – Status Log 50003

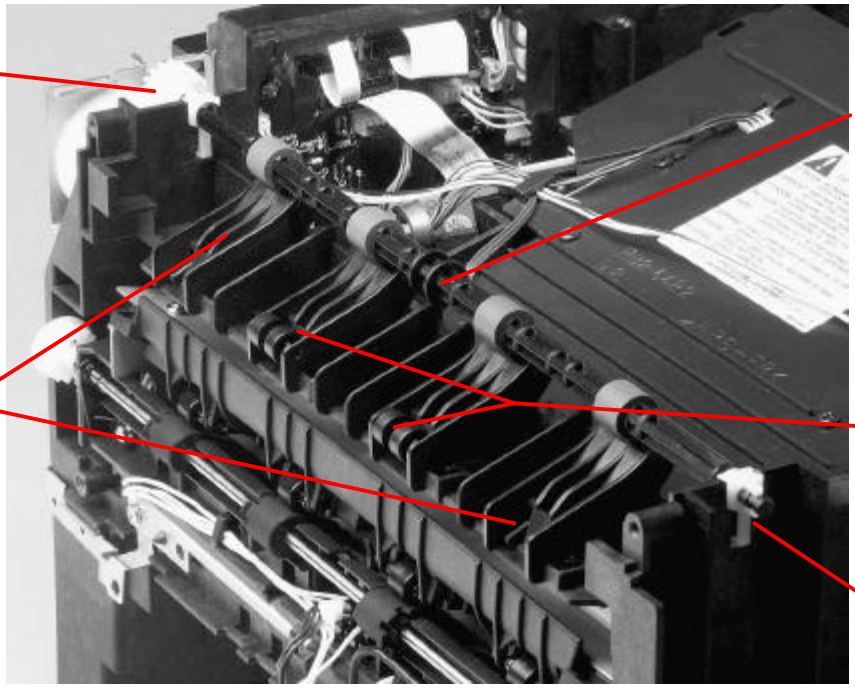
When all three LEDs of the HP LaserJet 2200 are illuminated you know you have a Fatal Error. Generally, customers (and service technicians) will turn the printer OFF and then ON in an attempt to clear the Fatal Error. This may, or may not clear the error. If turning the printer off does clear the Fatal Error, you still need to do more troubleshooting! Have your customer print a "Self Test/Configuration" page. [To do this, press both the Go and Job Cancel button simultaneously.] Review the codes in the Status Log from the Configuration page. If any of the status code entries read "50003", it is highly likely that a thermistor in your printer's Fusing Assembly is marginal; please replace the Fusing Assembly. Service parts inventories have been screened to eliminate any marginal thermistors.



The Status Log is located on the Self Test/Configuration Page. The codes are located in the Service Manual.

Squeaking Output Delivery Rollers

We have had several situations where the Output Delivery Rollers on the HP LaserJet 2200 have been squeaking. [The noise is a loud whining noise, not a grinding noise.] The Output Delivery rollers deliver the paper from the printer's fuser assembly to the face-down output bin.



Rear view of the HP LaserJet 2200 printer without its Top Cover.

A Service Kit (part number C7058-67904) is being developed which includes a new output roller shaft, the two outside roller assemblies, two inside roller assemblies, two white bushings and a 15-tooth gear. This kit will not be available until the mid-April timeframe. All parts in the kit have been pre-lubed and greased appropriately to eliminate noise.

If it is absolutely necessary to repair a customer printer now, you may do so by: 1) removing the Output Roller Shaft and the two white bushing, 2) lubricating the hole (opening) in the bushing(s) that shaft is inserted into, and 3) replacing the outside and inside face down delivery roller assemblies, see part numbers above. [All spare part delivery roller assemblies have been pre-lubed!] It is our recommendation you wait for the service kit.

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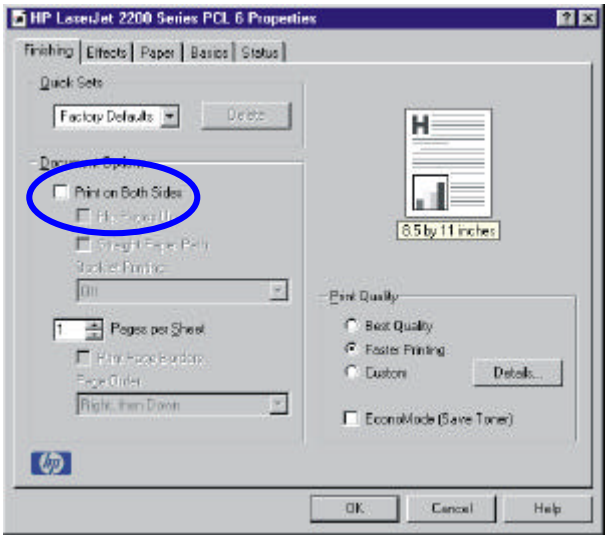
Can't Duplex with your HP LaserJet 2200 Duplex printer?

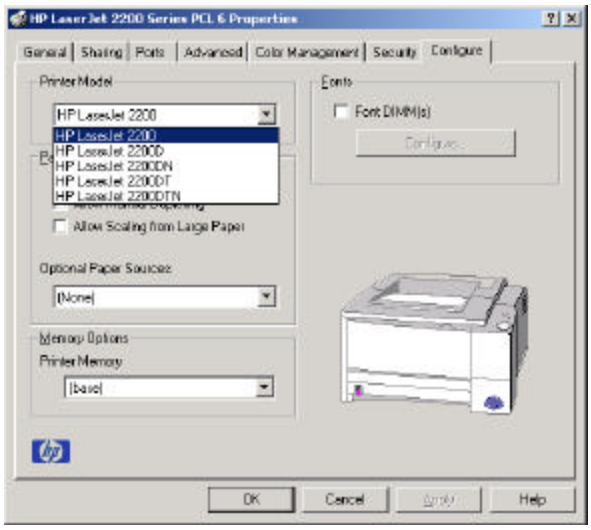


We have had a few situations were customers call in saying they cannot "Print on Both Sides" with their HP LaserJet 2200D/N/T/TN printer! It should be noted that the "D", "N", "T" and "TN" models of the HP 2200 all come with duplexing standard with the product.

Why would this happen?

When customers load the current driver shipped with the product (version 4.3.2.163), the default in the driver settings assumes the customer is connected to the simplex version of the HP LaserJet 2200 printer. [See the September 01 issue of this Newsletter.] Naturally, if the driver thinks it is connected to a simplex version of the HP LaserJet 2200 it would not show the "Print on Both Sides" checkbox.

What to do if your customer installed the simplex model of the printer?



If your customer inadvertently installed the simplex model of the printer they may correct the situation by Clicking onto the Windows **Start** key, scroll to **Setting**, and then to **Printers**. You then should get into the **Properties** of your LaserJet 2200 driver. Once you have the Properties tabs up, click onto the **Configuration** tab, and then highlight the correct model of the printer you are attempting to print to. Click **OK** and close the printer driver page. When you next attempt to print, your driver Finishing Tab should now display the "Print on Both Sides" checkbox.

New HP LaserJet 4100 Printer Driver

New printer drivers (PCL 5e and PCL6) for the HP LaserJet 4100 printer will soon be available on the www.hp.com drivers and downloads support page. These drivers are for the Windows 9x and ME, NT4.0, and Windows 2000 and Windows XP operating systems. Following is a list of driver enhancements and defects resolved with this update:

HP LaserJet 4100 Driver Versions (for PCL 5e/PCL6)	
Windows 9x and Window ME	v4.3.2.167
Windows NT4.0	v4.3.2.178
Windows 2000 and Windows XP	v4.3.2.167

Enhancements

Driver Auto-Configuration through ".inf install"

During an ".inf install" (either through Add Printer or Point and Print) the printer driver temporary establishes bi-di communication with the printers in the environments (operating systems) were bi-directional communications is supported. The driver will configure itself for all printer hardware accessories (e.g., additional input trays, hard disk drives, duplex options, etc …) associated with the target printer. The bi-di communications will be closed down once the configuration is complete. Read more about this feature in the Enterprise Auto-Configuration article on page 11 of this Newsletter!

Performance

There are a number of performance enhancements with this version of the driver; these include:

- The time for the Driver User Interface to appear when selecting "Print" within an application.
- The time for changing to a different HP Driver within the Print Dialog Drop-Down list
- The time for selecting "Properties" from the Print Dialog Box.
- The time for an application to load when one of these drivers is set as the default,
- Finally, there is some improvement in print speed when using the newer driver with certain applications.

Watermarks

In some cases, the ability to access watermarks was not available to users that did not have administrator privileges. This was particularly true in a shared printer environment. This enhancement ensures all users now have access to watermarks.

User Name Insertion

This enhancement now permits Users' to insert their name into a print data job stream via a PJL comment. This enhancement is for those applications where job accounting is required.

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Additional PCL 5e Commands

New PCL 5e commands are now available for handling of multiple custom paper sizes.

Driver Defects Resolved

The following driver defects have been addressed:

- In the Windows 2000, PCL6 Driver, the DWS (Desktop Work Space) maximum value was corrected.
- For all operating systems, for both the PCL 5e and PCL 6 drivers, you can now select a Maximum Total Memory value of 256 Mbytes.
- For all operating systems, for both the PCL 5e and PCL 6 drivers, the paper source setting was not “sticking” when the paper type setting is not set to “Auto Select”.
- For all operating systems, for both the PCL 5e and PCL 6 drivers, the “Print on Both Sides” checkbox was selectable even when a small custom size of paper was chosen. This is not a supportable configuration.
- For Windows 2000, for both the PCL 5e and PCL 6 drivers, the issue of the General Tab not displaying the correct feature information.
- For the PCL 5e driver, the issue of displaying incorrect margin values for some media sizes.
- For the PCL 5e and PCL 6 drivers, the performance degradation issues with printing a large number of complex 2-Byte fonts.
- For the PCL 5e and PCL6 drivers working in a Terminal Server Environment, the susceptibility of a buffer overrun creating a “blue screen”; this issue was fixed.
- PCL 6, general memory leaks.
- For all operating system, the issue of the PCL 5e driver clipping the header for footer.

Updated Windows 2000 and Windows XP Drivers (for the Legacy LaserJet 4, 5 and 6 series printers)

Soon available from the www.hp.com drivers and download support page will be PCL 5e and PS (PostScript) drivers for Windows 2000 and Windows XP supporting the LaserJet 4, 5 and 6 series products. These drivers will be available from the driver download pages of www.hp.com as a single .inf file for all products (total of two zip files for each language). These drivers are based on the in-box unidriver and PScript driver core from Windows XP, but have additional functionality added by HP. Specific enhancements to these drivers include:

- The addition of three new driver tabs in the UI - Paper/Quality, Finishing, Effects. These additional tabs are the result of a customized UI that HP

engineers have been able to check into operating system to work in conjunction with the unidriver core.
- Support for Watermarks (see known issues for more details about no support in 2-byte languages)

Known issues include:

- No support for disk fonts (printer resident fonts) with these drivers. The drivers do support font DIMMs.
- No watermark support for the following languages: arabic (arabic), cesky (czech), chi_simp (chinese-simplified), chi_trad (chinese-traditional), hebrew (hebrew), japanese (japanese), korean (korean), magyar (hungarian), polski (polish), russ (russian), thai (thai), turkce (turkish)

Over the next few weeks these drivers will be available on an internal web site to allow time for support personnel to download and review the drivers before making them available to the general public. Once release to www.hp.com, these drivers will be the premium driver solution for LaserJet 4, 5 and 6 series products in both Windows 2000 and Windows XP.

We are asking folks to download and test the drivers from the web site below.
http://sdt.boi.hp.com/1_ProjectSites/WhistlerMombi/WhistlerMombi.html
(if you have problems with the link - go to http://sdt.boi.hp.com and select the "hp LaserJet 4,5, 6 Windows 2000/XP" link from the bottom of the page.)

If you encounter any issues or want to report any defects, please e-mail the division the necessary steps to reproduce the issue.

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HP LaserJet Printers Enterprise Auto-Configuration

The concept of Driver Auto-Configuration allows for the printer driver, which is currently being installed (either via Add Printer Wizard or Point and Print), to be able to take advantage of HP's bi-directional software and auto-configuration functionality. This functionality allows the driver to be configured to the same functionality that physically resides in the printer. For example, the driver (through bi-directional communication) would detect if the printer had additional paper tray, hard disk driver, duplex option, stackers, staplers etc… and then configure driver to show these options. After the driver is configured, the bi-directional communication between the printer driver and the printer is closed down. The table below lists the driver versions by products and operating systems that support this functionality.

Drivers that support Enterprise Auto-Configuration

Product	Windows 9x and Windows ME	Windows NT4.0	Windows 2000 and Windows XP
LaserJet 4100	Yes (PCL 5e/6 only – v. 4.3.2.167 and higher)	Yes (PCL 5e/6 only - v. 4.3.2.178 and higher)	Yes (PCL 5e/6 only – v. 4.3.2.167 and higher)
Color LaserJet 4550	Yes (PCL 5e/6 only – v. 4.3.2.163 and higher)	Yes (PCL 5e/6 only - v. 4.3.2.178 and higher)	Yes (PCL 5e/6 only – v. 4.3.2.163 and higher)
LaserJet 8150	Yes (PCL 5e/6 only – v. 4.3.2.163 and higher)	Yes (PCL 5e/6 only - v. 4.3.2.178 and higher)	Yes (PCL 5e/6 only – v. 4.3.2.163 and higher)
LaserJet 9000	Yes (PCL 5e/6 only – v. 4.3.2.167 and higher)	Yes (PCL 5e/6 only - v. 4.3.2.178 and higher)	Yes (PCL 5e/6 only – v. 4.3.2.167 and higher)

For a more a more in depth explanation of how enterprise auto-configuration works and which files are required to enable and disable bi-directional communication refer to the HP LaserJet Printers Enterprise Auto-Configuration white paper at:

http://techweb.boi.hp.com/highlights/whitepapers/

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New Firmware Update for HP LaserJet 4100

There is a new firmware update for the HP LaserJet 4100 printer; firmware **datecode 1.027.2**. The following is a list of fixes corrected with this revision of the firmware. If your customers are experiencing any of these issues, please call your Customer Care Center to request replacement firmware.

Key fixes with this revision of firmware:

- Numerous improvements HP/GL2 performance. (4100)
- Specific PDF file only printing part of the first page with PS. (8150)
- PCL command &a#L creating line on page. (4100)
- Embedded web server - delay feature in e-mail notification not working properly. An alert would be sent immediately after an event, even if the alert was configured for a time delay. (4100)
- Some EPS file from Quark Xpress printing incorrectly. (4550,4100)
- Offending command PS error when printing pdf2ps PostScript files created by GhostScript (8000/8100)
- Slow printing with Excel file using PS driver with MS P Gothic font. (8150)
- Monochrome printing of color documents prints differently compared to previous products.Leveraged a fix that added 1200 dpi printing in PCL 5e. (4100)
- Top & Left Registration HP/GL2 commands would modify plot/fill raster data resulting in incorrect output. (4100)
- PCL FlushAllPages command not working properly. (4100)
- Estimated Pages Remaining value different from toner gas gauge. Improvements were made to make the estimated pages remaining value more accurate throughout the life of the cartridge. (4100/9000)
- FSA Flash DIMM performance slower than with previous products. (4100)
- Symbol sets ROMAN-9 (PCL symbol set 4U), ISOL9 (PCL symbol set 9N), and PC-858 (PCL symbol set 13U) missing from control panel. These symbol sets have been added to the end of the PCL SYMBOL SET List and can be accessed via the control panel or PJL commands. (4100)
- 49.4C02 error with PS file (4100)

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Several of the issues resolved in this revision of firmware were leveraged from other products. For this reason, the firmware fix list includes the product were the issue was originally escalated on in parentheses after the issue. For example, one of the leveraged fixes was for a PDF file that only printed part of the first page with the PostScript driver. This issue was originally escalated on the LaserJet 8150 but during testing was also found to fail on the LaserJet 4100.

New Firmware Part Numbers

Firmware 1.027.2	**C4168AG and C4168-60006**

Support parts will NOT be available until the mid-March time-frame!

There will be a Service Note issued for this firmware revision as soon as parts are in place at the North American and European Parts Centers. A thorough list of all fixes with each revision of firmware for the HP LaserJet 4100 may be found on TechWeb at the following url:

http://techweb.boi.hp.com/current/4100/issues/